ABSTRACT OF THE DISCLOSURE

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RT-PCR based systems for detection of exogenous and endogenous avian leukosis/sarcoma viruses in the albumen fertilized and unfertilized poultry eggs have been developed. systems permit the identification of virus-contaminated eggs and of viral presence in sera of birds. These systems aid in the prevention of high loss rates of egg-laying birds in the poultry industry and the reduction in potential human exposure these oncogenic retroviruses through consumption of contaminated commercial eggs. It is further envisioned that detection methods can be modified to include viral detection of other samples from various avian origins and other animal or human retroviruses.